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Murphy

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(54) **AUDIENCE SCANNING LASER DISPLAY PROJECTOR AND ASSOCIATED METHODS**

(76) Inventor: **Patrick Murphy**, Orlando, FL (US)

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See application file for complete search history.

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Primary Examiner — William C Dowling

(74) *Attorney, Agent, or Firm* — Allen, Dyer Doppelt, Milbrath & Gilchrist, P.A.

(57) **ABSTRACT**

An apparatus and method for an audience scanning laser display projector includes a laser projector capable of generating a laser beam output having a predetermined beam path, scan area and beam wavelength. A beam position sensor is associated with said laser projector. A camera capable of capturing an image of the audience using light of a wavelength other than the beam wavelength, is disposed relative to said laser projector so that the captured image includes the area scanned by the laser beam. A processor is operably connected with said laser projector, said beam position sensor and said camera, said processor generating a table corresponding to the camera image of the audience, and containing software capable of identifying location of faces in the audience image and comparing face locations with beam position so as to signal said laser projector to attenuate the beam when scanning over a face location.

2 Claims, 8 Drawing Sheets